

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JT/T 1288-2020

**Technical requirements for multimodal transport of refrigerated
containers**

冷藏集装箱多式联运技术要求

(English Translation)

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Foreword

This standard is in accordance with GB/T 1. Drafting of the rules given in 1-2009.

This standard was proposed and managed by the National Comprehensive Transportation Standardization Technical Committee (SAC/TC 571).

Drafting organizations of this standard. Research Institute of Ministry of Transport, Beijing Jiaotong University, Dalian Port Container Development Co., Ltd., CRRC Shijiazhuang Vehicle Co., Ltd., China Railway Tielong Container Logistics Co., Ltd., Beijing Express Line Cold Chain Logistics Co., Ltd., Beijing Airport Aviation Ground Service Co., Ltd., Liaoning Provincial Transportation Development Center.

1 Scope

This standard specifies the facility and equipment requirements, intermodal operation requirements, and intermodal information requirements for multimodal transport of refrigerated containers.

This standard applies to multimodal transport of refrigerated containers.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

GB 1589-2016 External dimensions, axle loads and mass limits of automobiles, trailers and automobile trains
GB/T 7392-1998 Series 1. Technical requirements and test methods for containers
Insulated containers
GB/T 11601 Inspection and Handover Requirements for Container Entry and Exit Stations
GB/T 13145-2018 Technical management requirements

for refrigerated container yard GB/T 14412 Mechanical installation of mechanical vibration and shock accelerometer GB/T 15140 Technical requirements for air cargo container unit GB/T 17770 Container air/land/water (intermodal transport) general container technical requirements and test methods GB/T 18517 Terms of refrigeration GB/T 28843 Food cold chain logistics traceability management requirements GB/T 30103.1-2013 Thermal performance test method of cold storage Part 1: Temperature and humidity test GB/T 3608-2018 cold chain logistics information management requirements GB/T 3576-2017 General Specification for Map Navigation and Positioning Products GB 50072 Code for Design of Cold Storage JT/T 1092 Terminology for multimodal cargo transportation International Air Transport Association (IATA) "Container Regulations" (Unit Load Device Regulations)

3 Terms and definitions

The following terms and definitions established in GB/T 18517 and JT/T 1092 apply to this document. For ease of use, the following repeated columns Some terms and definitions in GB/T 18517 and JT/T 1092 are listed.

Refrigerated container refrigerated container Container with cold source and insulated box.

[GB/T 18517-2012, definition 5.4.5] 3.2 Multimodal transport intermodal transport the goods are loaded by one and the same carrier unit, and are successively transported by two or more modes of transportation, and in the process of changing the mode of transportation it does not operate on the cargo itself.

[JT/T 1092-2016, definition 2.2] 3.3 Refrigerated container multimodal transport refrigerated container intermodal transport Multimodal transportation with refrigerated containers as the carrier.

4.1 Reefer container

4.1.1. The technical conditions of refrigerated containers for multi-modal use of road, rail, water, and molten iron should meet the requirements of GB/T 7392.

4.1.2

The technical conditions of air-land intermodal refrigerated containers should meet the requirements of GB/T 15140 and GB/T 17770, and should also meet the airworthiness requirements and the requirements of SS 50/0, SS 50/4 and SS 80/1 to SS 80/3 of the "Udder Container Rules" (2018).

4.2 Refrigerated container intermodal station

4.2.1. The site selection of road-rail, sea-rail, and iron-water combined transport yards should be comprehensively considered with the construction of railway freight yards. It is advisable to construct special railway lines and railway cold chain freight.

Loading and unloading line.

4.2.2

The technical conditions of the refrigerated container intermodal station shall meet the requirements of GB/T 13145.

4.2.3

Intermodal transport yards should be equipped with refrigerated container maintenance sites and equipment, and have the function of refrigerated container maintenance.

4.2.4. The intermodal station should be equipped with a cold storage. The basic technical requirements for cold storage should meet the requirements of GB 50072.

4.2.5. The intermodal station should be equipped with refueling, charging and cooling facilities.

4.2.6. The power supply and transmission and distribution facilities of the intermodal station shall comply with the provisions of GB/T 13145-2018.1. The requirements of 2 shall meet the requirements of refrigerated container the power supply needs of the box to ensure 24h continuous power supply.

4.2.7

The intermodal station should be equipped with emergency power supply facilities for refrigerated containers. The emergency power supply facilities should be set up according to the actual business volume of the intermodal station.

It can guarantee the power supply of refrigerated container for at least 2h.

4.2.8. Charging piles for road, rail, hot metal, and air-land intermodal transport stations shall meet the requirements of cold charging and supplementary energy for refrigerated containers.

4.2.9

The refrigerated container intermodal transport station shall be equipped with rapid reloading equipment, and the equipment for road-rail intermodal transportation, road-water intermodal transportation, rail-water intermodal transportation, air-land intermodal transportation the loading and unloading equipment shall have a loading and unloading capacity not less than the actual weight of the container and not less than 35 tons.

4.2.10. According to the specifications of the refrigerated container, the matching ship, vehicle, aircraft and other transportation tools and loading and unloading equipment should be selected.

The rated load of tools and handling equipment should match the weight of the refrigerated container.

4.3 Temperature, humidity, vibration and position detection equipment for refrigerated

container intermodal transportation

4.3.1 The temperature and humidity monitoring equipment should be equipped on the refrigerated container, and should meet GB/T 30103. Chapter 4 and Chapter 5 in 1-13 the requirements of Chapter 6 and GB/T 7392-1998 8.15 requirements.

4.3.2 The refrigerated container can be equipped with vibration monitoring equipment, and its technology should meet the requirements of GB/T 14412.

4.3.3. The refrigerated container should be equipped with a positioning device, which should be compatible with the Beidou positioning system, and should meet the requirements of GB/T 35766-2017 the requirements of Chapter 6 and Chapter 7.

4.3.4 The reefer container should be equipped with a remote communication device to realize the collected temperature, humidity, location, vibration and other information of the reefer container.

Wireless upload.

5 Combined transport operation requirements

5.1

Shippers, multimodal transport operators, and carriers should clarify the temperature control requirements for the entire process of multimodal transport of refrigerated containers and the transition of intermodal transport.

Change job requirements, including.

- a) Requirements for the name, specification, packaging, identification, quantity, and transportation time limit of refrigerated goods;
- b) Temperature control in the whole process of multimodal transport proposed by the shipper or agreed upon by the shipper, multimodal transport operator, and carrier System scope
- c) Temperature monitoring requirements during the whole process of multimodal transportation, including temperature measurement location, temperature measurement method, temperature measurement time interval, etc.;
- d) The location of the cargo reloading station and relevant requirements for reloading operations;
- e) Handling requirements for abnormal situations such as time delays and damage to refrigerated containers during intermodal transportation.

5.2

When connecting and converting between different modes of transportation, both parties to